

Kansas'
Cooperative Agriculture Pest Survey
Cooperative Agreement: 09-8453-1227-CA (extension agreement)
and 10-8453-1227-CA
Period Covering: 1/1/10-12/31/10

Annual
CAPS Surveys and Fiscal Report
January 1, 2010 through December 31, 2010

This report summarizes the activities conducted during the agreement's annual work period, January 1, 2010 through December 31, 2010. Each project is discussed separately.

Jeffrey W. Vogel
State Plant Regulatory Official (SPRO)

Small Grain & Soybean Commodity Survey (2009 extension)

Participants: Full time KDA staff – Glenn Salsbury provided training and specimen sorting.

Temporary Staff - Gari Van Es did survey work.

Traps for moth identifications sent to Eric LaGasa in Olympia, Washington.

2010 Proposed Counties: Butler, Dickinson, Ellsworth, Harper, Harvey, Kingman, Marion, McPherson, Rice, Reno, Saline, Sedgwick and Sumner.

Common Name	Scientific Name	Survey Dates (Starting-Ending)	Survey Method	Number of Wheat Fields
Silver Y Moth	<i>Autographa gamma</i>	April-June 2010	Pheromone Trap	100
Egyptian Cotton Leafworm	<i>Spodoptera littoralis</i>	April-June 2010	Pheromone Trap	100
Old World Bollworm	<i>Helicoverpa armigera</i>	April-June 2010	Pheromone Trap	100
Maritime Gardensnail	<i>Cernuella virgata</i>	April-June 2010	Visual Survey	100
Yellow Witchweed	<i>Alectra vogelii</i>	April-June 2010	Visual Survey	Completed in 2009 in soybean fields
Soybean Aphid	<i>Aphis glycines</i>	April-June 2010	Visual Survey & Sweep Nets	Completed in 2009 in soybean fields
Cereal Leaf Beetle-in wheat fields	<i>Oulema melanopus</i>	April-June 2010	Visual Survey & Sweep Nets	100
Insidious Flower Bug & Minute Pirate Bug	<i>Orius spp.</i>	April-June 2010	Visual Survey & Sweep Nets	100
Damsel Bug	<i>Nabis spp.</i>	April-June 2010	Visual Survey & Sweep Nets	100
Lacewings		April-June 2010	Visual Survey & Sweep Nets	100
Lady Beetles		April-June 2010	Visual Survey & Sweep Nets	100

This survey was a continuation from 2009 because not all the funding was spent so an extension was granted. We focused on 100 wheat fields in the counties of Dickinson, Saline, Ellsworth, Rice, McPherson, Marion, Reno, Harvey, Butler, Sedgwick, Kingman, Harper and Sumner. These counties have the most wheat and the survey was started late because of funding being received in the middle of June 2009. We also had weather and vandalism issues in some of these counties in 2009.

Soybean fields were not done this year because traps were set at the proper time in 2009.

This survey started March 29 and ended in July 26, 2010. Problems encountered were rain and flooding so monitoring the traps and changing lure during the appropriate timeframe became an issue.

There were 219 traps with 1,050 specimens sent to the Washington State Department of Agriculture for identification after screening. There were no priority target pests detected.

Identified Moths

Lure: Old World bollworm, Egyptian cottonworm*

Determination	# Specimens	Determination	# Specimens
<i>Helicoverpa zea</i>	230	<i>Anagrapha falcifera</i>	2
<i>Rachiplusia ou</i>	10	<i>Heliothis</i> sp.	38
<i>Resapamea passer</i>	16	<i>Trichoplusia ni</i>	2
Undetermined non-targets	11	Noctuidae, MS2	1

Lure: silver Y moth*

Determination	# Specimens	Determination	# Specimens
<i>Rachiplusia ou</i>	427	<i>Helicoverpa zea</i>	5
<i>Anagrapha falcifera</i>	212	<i>Heliothis</i> sp.	2
<i>Trichoplusia ni</i>	15	<i>Leucania</i> sp.	1
Noctuidae, MS2	4	Undetermined non-target	18

* Lure information is based on Box 17, PPQ Form 391.

31 specimens arrived destroyed, with no diagnostic parts remaining.

Records that have been submitted to NAPIS

Pest: CEREAL LEAF BEETLE (*Oulema melanopus*)

Positive		Negative	Positive		Negative
March 2010			June 2010		
Sumner	0	11	Butler	0	1
April 2010			Dickinson	0	6
Butler	0	3	Ellsworth	0	4
Dickinson	0	6	McPherson	0	10
Ellsworth	0	4	Marion	0	5
Harper	0	10	Rice	0	9
Harvey	0	5	Saline	0	6
Kingman	0	10	Sedgwick	0	10
McPherson	0	10	July 2010		
Marion	0	5	Butler	0	3
Reno	0	10	Harper	0	10
Rice	0	9	Harvey	0	5
Saline	0	6	Kingman	0	10
Sedgwick	0	10	McPherson	0	10
Sumner	0	1	Reno	0	10
May 2010			Sedgwick	0	10
Butler	0	2	Sumner	0	12
Harper	0	10			
Harvey	0	5	State Total		
Kingman	0	10	0 270		
Reno	0	10			
Sumner	0	12			

Pest: LACEWINGS (*Chrysoperla (Chrysopa) carnea*)

Test: ENCEWINGS (*Chrysoperla carnea*)

Positive		Negative	Positive		Negative
March 2010			June 2010		
Sumner	0	11	Butler	0	1
April 2010			Dickinson	0	6
Butler	0	3	Ellsworth	0	4
Dickinson	0	6	McPherson	0	10
Ellsworth	0	4	Marion	0	5
Harper	0	10	Rice	0	9
Harvey	0	5	Saline	0	6
Kingman	0	10	Sedgwick	0	10
McPherson	0	10	July 2010		
Marion	0	5	Butler	0	3
Reno	0	10	Harper	0	10
Rice	0	9	Harvey	0	5
Saline	2	4	Kingman	0	10
Sedgwick	0	10	McPherson	0	10
Sumner	0	1	Reno	0	10
May 2010			Sedgwick	0	10
Butler	0	2	Sumner	0	12
Harper	0	10			
Harvey	0	5	State Total		5265
Kingman	2	8			
Reno	1	9			
Sumner	0	12			

Pest: LADY BEETLES (*Hippodamia convergens*)

Positive		Negative	Positive		Negative
March 2010			June 2010		
Sumner	0	11	Butler	1	0
April 2010			Dickinson	0	6
Butler	0	3	Ellsworth	0	4
Dickinson	0	6	McPherson	4	6
Ellsworth	0	4	Marion	1	4
Harper	0	10	Rice	5	4
Harvey	0	5	Saline	0	6
Kingman	0	10	Sedgwick	2	8
McPherson	0	10	July 2010		
Marion	0	5	Butler	0	3
Reno	0	10	Harper	0	10
Rice	0	9	Harvey	0	5
Saline	0	6	Kingman	0	10
Sedgwick	0	10	McPherson	0	10
Sumner	0	1	Reno	0	10
May 2010			Sedgwick	0	10
Butler	2	0	Sumner	0	12
Harper	4	6			
Harvey	4	1	State Total		
Kingman	5	5	38	232	
Reno	10	0			
Sumner	0	12			

Pest: MARITIME GARDEN SNAIL (*cernuella virgata*)

Positive			Negative			Positive			Negative				
March 2010						June 2010							
Sumner		0	11			Butler		0	1				
April 2010						Dickinson						0	6
Butler		0	3			Ellsworth		0	4				
Dickinson		0	6			McPherson		0	10				
Ellsworth		0	4			Marion		0	5				
Harper		0	10			Rice		0	9				
Harvey		0	5			Saline		0	6				
Kingman		0	10			Sedgwick		0	10				
McPherson		0	10			July 2010							
Marion		0	5			Butler		0	3				
Reno		0	10			Harper		0	10				
Rice		0	9			Harvey		0	5				
Saline		0	6			Kingman		0	10				
Sedgwick		0	10			McPherson		0	10				
Sumner		0	1			Reno		0	10				
May 2010						Sedgwick		0	10				
Butler		0	2			Sumner		0	12				
Harper		0	10										
Harvey		0	5			State Total		0	270				
Kingman		0	10										
Reno		0	10										
Sumner		0	12										

Pest: DAMSEL BUG (*Nabis spp.*)

Positive			Negative		
March 2010			June 2010		
Sumner	0	11	Butler	0	1
April 2010			Dickinson	0	6
Butler	0	3	Ellsworth	0	4
Dickinson	0	6	McPherson	0	10
Ellsworth	0	4	Marion	0	5
Harper	0	10	Rice	0	9
Harvey	0	5	Saline	0	6
Kingman	0	10	Sedgwick	0	10
McPherson	0	10	July 2010		
Marion	0	5	Butler	0	3
Reno	0	10	Harper	0	10
Rice	0	9	Harvey	0	5
Saline	1	5	Kingman	0	10
Sedgwick	0	10	McPherson	0	10
Sumner	0	1	Reno	0	10
May 2010			Sedgwick	0	10
Butler	0	2	Sumner	0	12
Harper	0	10			
Harvey	0	5	State Total		
Kingman	1	9	2	268	
Reno	0	10			
Sumner	0	12			

Pest: INSIDIOUS FLOWER BUG & MINUTE PIRATE BUG (*Orius spp.*)

Positive		Negative	Positive		Negative
March 2010			June 2010		
Sumner	0	11	Butler	0	1
April 2010			Dickinson	0	6
Butler	0	3	Ellsworth	0	4
Dickinson	0	6	McPherson	0	10
Ellsworth	0	4	Marion	0	5
Harper	0	10	Rice	0	9
Harvey	0	5	Saline	0	6
Kingman	0	10	Sedgwick	0	10
McPherson	0	10	July 2010		
Marion	0	5	Butler	0	3
Reno	0	10	Harper	0	10
Rice	0	9	Harvey	0	5
Saline	0	6	Kingman	0	10
Sedgwick	0	10	McPherson	0	10
Sumner	0	1	Reno	0	10
May 2010			Sedgwick	0	10
Butler	0	2	Sumner	0	12
Harper	0	10	State Total 0 270		
Harvey	0	5			
Kingman	0	10			
Reno	0	10			
Sumner	0	12			

Pest: EGYPTIAN COTTON LEAFWORM (*Spodoptera littoralis*)

	Positive	Negative
Butler	0	3
Dickinson	0	4
Ellsworth	0	4
Harper	0	10
Harvey	0	5
Kingman	0	10
McPherson	0	10
Marion	0	5
Reno	0	10
Rice	0	8
Saline	0	6
Sedgwick	0	10
Sumner	0	11
State Total	0	96

Pest: OLD WORLD BOLLWORM (*Helicoverpa armigera*)

	Positive	Negative
Butler	0	3
Dickinson	0	4
Ellsworth	0	4
Harper	0	10
Harvey	0	5
Kingman	0	10
McPherson	0	10
Marion	0	5
Reno	0	10
Rice	0	8
Saline	0	6
Sedgwick	0	10
Sumner	0	11
State Total	0	96

Pest: SILVER Y MOTH (*Autographa gamma*)

	Positive	Negative
Butler	0	3
Dickinson	0	4
Ellsworth	0	3
Harper	0	9
Harvey	0	5
Kingman	0	10
McPherson	0	10
Marion	0	3
Reno	0	10
Rice	0	6
Saline	0	5
Sedgwick	0	10
Sumner	0	12
State Total	0	90

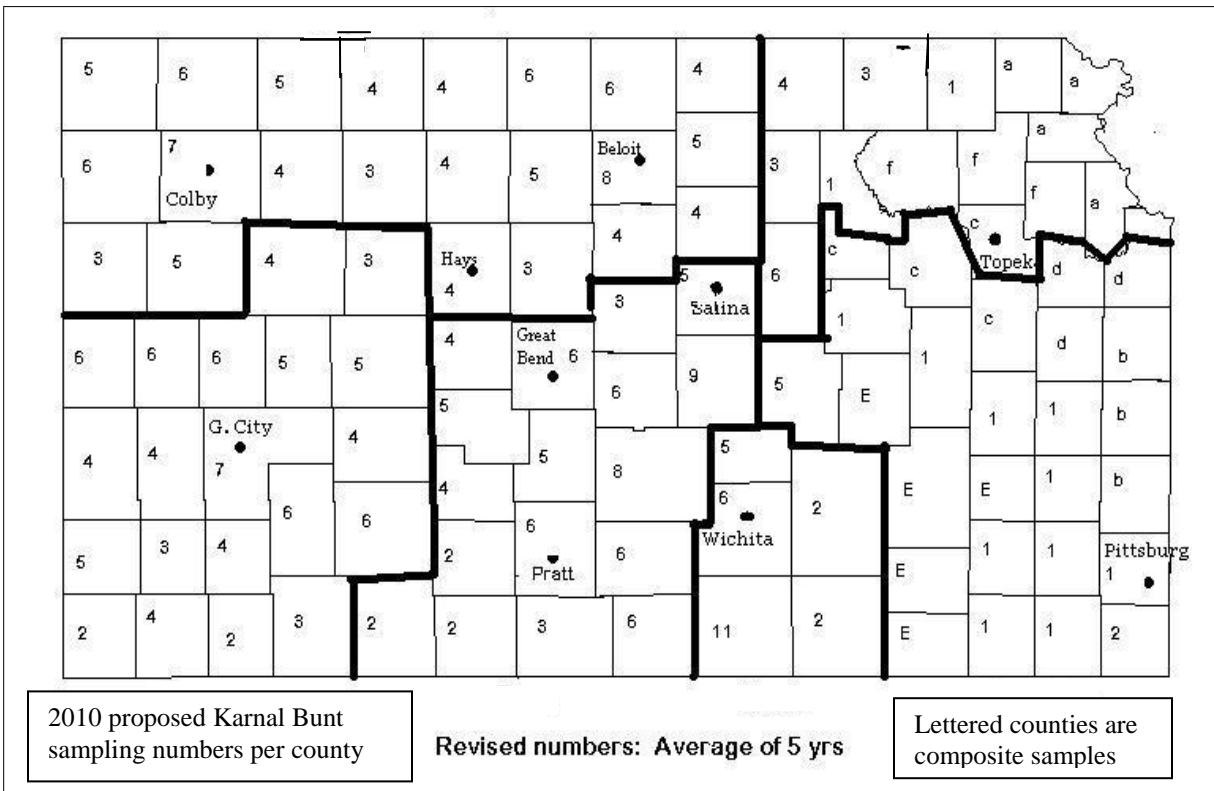
Karnal Bunt

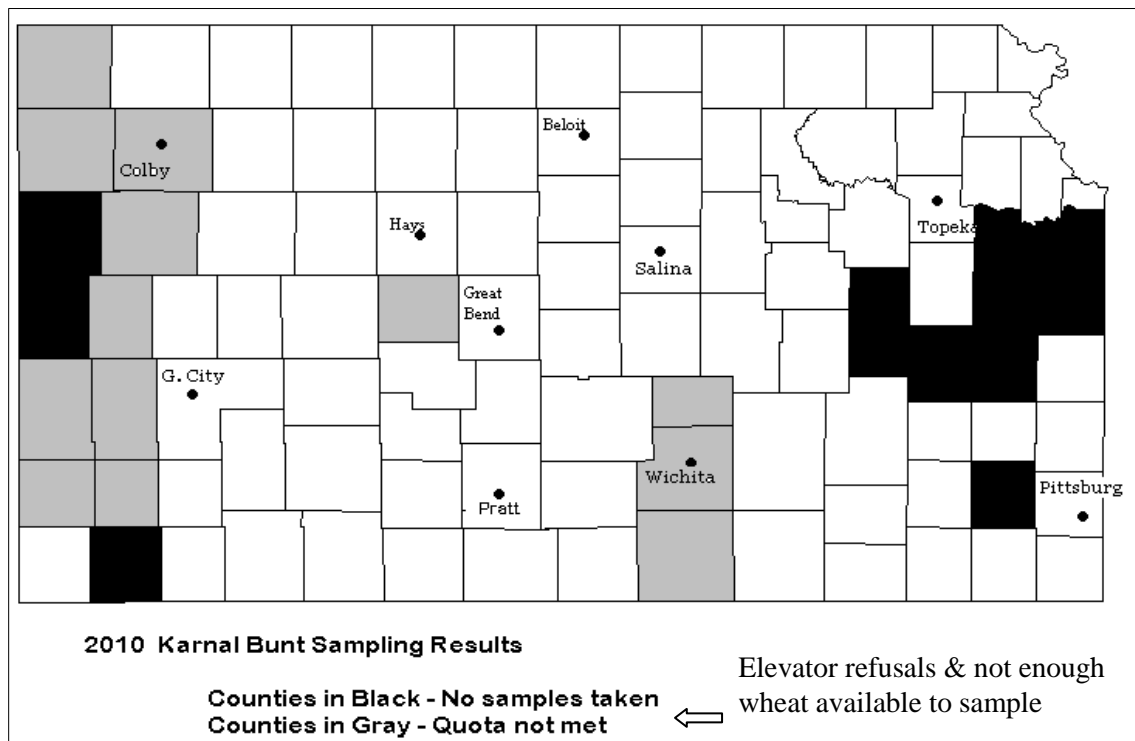
Participants: Full time KDA staff – Bob Buhler, Cherie Copeland, Jon Appel, Terry Clarkson, Tom Sanders and Laurinda Ramonda took samples.

Common Name	Scientific Name	Survey Dates (Starting-Ending)	Number of Sites
Karnal Bunt	<i>Tilletia indica</i>	Onset of wheat harvest to 3 weeks after harvests end	344 (down from 372)

The numbers of samples were revised from the proposed 372 to 344 samples for 2010 because the five year average of bushels of wheat harvested had decreased though some counties had increased.

Karnal Bunt sampling started on June 21 and continued until July 6, 2010. There were 305 samples taken in 78 counties. Approximately 10% of the wheat was not sampled because of a decrease in planted acres in some counties, weather problems and refusals at elevators. All samples were negative for Karnal bunt.





Records that have been submitted to NAPIS

Pest: KARNAL BUNT

Positive Negative			Positive Negative			Positive Negative		
Barber	0	3	Hodgeman	0	4	Rawlins	0	6
Barton	0	6	Jewell	0	6	Reno	0	8
Brown	0	1	Kearny	0	3	Republic	0	5
Butler	0	2	Kingman	0	6	Rice	0	6
Chautauqua	0	1	Kiowa	0	2	Riley	0	1
Cherokee	0	2	Labette	0	1	Rooks	0	4
Cheyenne	0	4	Lane	0	5	Rush	0	3
Clark	0	6	Lincoln	0	4	Russell	0	3
Clay	0	3	Logan	0	4	Saline	0	5
Cloud	0	5	McPherson	0	9	Scott	0	2
Comanche	0	2	Marion	0	5	Sedgwick	0	4
Cowley	0	2	Marshall	0	3	Seward	0	2
Decatur	0	5	Meade	0	3	Shawnee	0	1
Dickinson	0	6	Mitchell	0	8	Sheridan	0	4
Edwards	0	3	Montgomery	0	1	Sherman	0	5
Ellis	0	4	Morris	0	1	Smith	0	5
Ellsworth	0	3	Morton	0	2	Stafford	0	5
Finney	0	7	Nemaha	0	1	Stanton	0	4
Ford	0	6	Ness	0	5	Sumner	0	9
Gove	0	4	Norton	0	4	Thomas	0	6
Graham	0	3	Osage	0	1	Trego	0	3
Grant	0	2	Osborne	0	5	Washington	0	4
Gray	0	6	Ottawa	0	4	Wichita	0	3
Hamilton	0	3	Pawnee	0	5	Wilson	0	1
Harper	0	6	Phillips	0	4	Woodson	0	1
Harvey	0	3	Pottawatomie	0	1			
Haskell	0	4	Pratt	0	6	State Total	0	305

Red Imported Fire Ant Survey

Participants: Full time KDA staff – Glenn Salsbury provided training and sample identifications.
Temporary staff-Brian Brunkow

Proposed possible counties: Butler, Crawford, Douglas, Finney, Ford, Johnson, Miami, Montgomery, Riley, Shawnee and Sedgwick.

Common Name	Scientific Name	Survey Dates (Starting-Ending)	Number of Sites
Red Imported Fire Ant	<i>Solenopsis invicta</i>	June-July 2010	30

Live plant dealers with the highest risk of introduction were surveyed. This survey began on June 1 and ended September 1, 2010. Sixty-one live plant dealers were baited and trapped and all were negative for red imported fire ants.

Records that have been submitted to NAPIS

Pest: FIRE ANT (*Solenopsis invicta*)

Positive		Negative	Positive		Negative
June 2010			August 2010		
Butler	0	1	Ellis	0	3
Finney	0	2	Jefferson	0	1
Ford	0	3	Johnson	0	5
Franklin	0	1	Kingman	0	1
Geary	0	1	Leavenworth	0	1
Johnson	0	1	Miami	0	1
Nemaha	0	1	Morris	0	1
Pottawatomie	0	1	Osage	0	2
Riley	0	5	Reno	0	1
Sedgwick	0	5	Riley	0	1
Shawnee	0	2	Saline	0	1
Wyandotte	0	4	Shawnee	0	1
August 2010			Wyandotte	0	2
Atchison	0	1	September 2010		
Barton	0	3	Shawnee	0	3
Brown	0	1			
Clay	0	1	State Total	0	61
Douglas	0	4			

Emerald Ash Borer

Participants: Full time KDA staff – Bob Buhler, Cherie Copeland, Glenn Salsbury, Terry Clarkson and Tom Sanders did survey work.

Target Species	Scientific Name	Survey Dates (Starting-Ending)	Number of Traps
Emerald Ash Borer	<i>Agrilus planipennis</i>	April-September 2010	100

Campgrounds, event sites and debris sites were the major focus of our monitoring. This survey began on April 20 and all traps were up by May 14, 2010. All traps were taken down by mid October.

Problems encountered were storms and flooding. Flooding of campsites kept some of the traps from being monitored and lure changed at the appropriate timeframe. Eleven traps were lost through the trapping season.

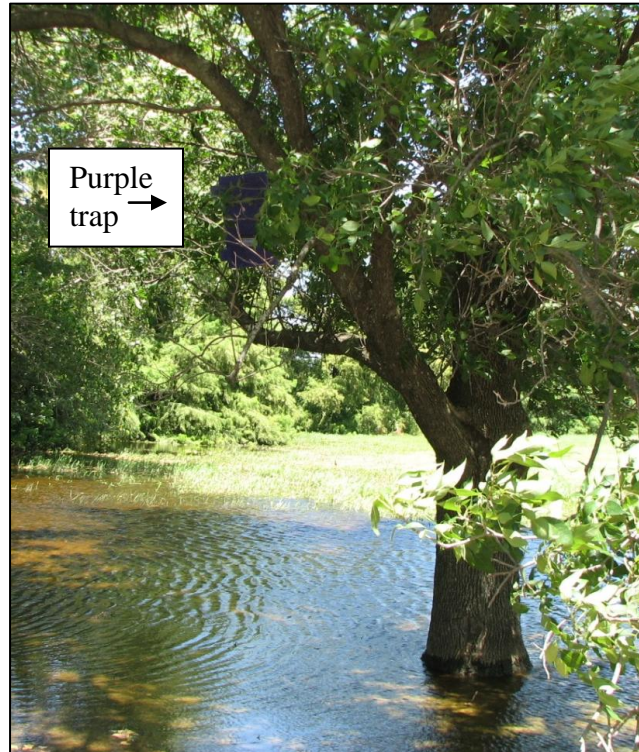


Photo by: Cherie Copeland at Marion Lake

Records that have been submitted to NAPIS

Pest: EMERALD ASH BORER (*Agrilus planipennis*)

*KDA data

	Positive	Negative		Positive	Negative
Barton	0	1	Mitchell	0	1
Bourbon	0	2	Montgomery	0	4
Butler	0	8	Morris	0	12
Chase	0	2	Neosho	0	2
Clark	0	1	Norton	0	2
Coffey	0	5	Osborne	0	1
Ellsworth	0	3	Pawnee	0	1
Greenwood	0	4	Reno	0	1
Harper	0	1	Rooks	0	2
Jewell	0	4	Russell	0	7
Kingman	0	1	Sedgwick	0	1
Labette	0	5	Stafford	0	1
Linn	0	1	Woodson	0	6
Marion	0	9			
Meade	0	1	State Total	0	89

Pest: EMERALD ASH BORER (*Agrilus planipennis*)

*USDA-APHIS-PPQ data

	Positive	Negative
Atchison	0	1
Brown	0	1
Doniphan	0	1
Douglas	0	17
Franklin	0	1
Geary	0	11
Jackson	0	2
Jefferson	0	13
Johnson	0	5
Leavenworth	0	2
Nemaha	0	1
Osage	0	19
Pottawatomie	0	1
Riley	0	13
Shawnee	0	4
Wyandotte	0	6
State Total	0	98

Canada thistle (*Cirsium arvense*)
Biological Control using *Ceutorhynchus litura*

Participants: full time KDA staff – Darin Banks provided monitoring and release.

Month	Activity
August	Release <i>Ceutorhynchus litura</i>
August - October	Monitor Canada thistle and <i>Ceutorhynchus litura</i>

September 14, 2010 - 800 Canada thistle stem mining weevils (*Ceutorhynchus litura*) were released at Keith Sebelius Lake in Norton County by Reginald Beckman (Norton County Weed Director) and Cris Mulder (Area Manager, Kansas Department of Wildlife and Parks wildlife). No existing *Ceutorhynchus litura* were observed. These releases were not done by Darin Banks because of an injury.

September 16, 2010 - 783 Canada thistle stem mining weevils were released.

September 24, 2010 - 276 Canada thistle stem mining weevils were released.

Both releases were at Keith Sebelius Lake. All insects were acquired by Weed Busters Biocontrol in Missoula, Montana. All releases were completed by September 24th with a total of 1,859 insects released.

Records that have been submitted to NAPIS

Pest: CANADA THISTLE STEM MINING WEEVIL (*Ceutorhynchus litura*)

	Positive	Negative
September 2010		
Norton	3	0
State Total	3	0

Spotted Knapweed (*Centaurea stoebe* L.)
biological control using the lesser knapweed flower weevil (*Larinus minutus*) and the knapweed root weevil (*Cyphocleonus achates*)

KDA full time – Jeff Vogel provided training and surveying and Darin Banks provided release.

Temporary staff – Brian Brunkow

Proposed counties: Cheyenne, Decatur, Jewell, Norton, Phillips, Rawlins and Smith.

Other possible counties: Allen, Anderson, Franklin, Labette and Neosho.

Month	Activity
June-August	Survey for spotted knapweed
July	Release <i>Larinus minutus</i>
August	Release <i>Cyphocleonus achates</i>
August-October	Monitor spotted knapweed and <i>Larinus minutes</i> and <i>Cyphocleonus achates</i>

The survey began on June 23 and ended August 6, 2010 for spotted knapweed. There were 523 sites visited in 21 counties.

June 24, 2010 - 800 knapweed flower weevils (*Larinus minutus*) were released.

August 6, 2010 - 100 knapweed flower weevils were released.

A total of 900 insects were released.

August 6, 2010 - A sweep net survey was taken and 5 Knapweed Flower Weevils were identified but no knapweed root weevils were found but many flowers showed evidence of parasitism.

August 12, 2010 - 600 knapweed root weevils (*Cyphocleonus achates*) were released.

August 20, 2010 - 700 knapweed root weevils were released.

A total of 1,300 insects were released at the Nemaha County release site.

Existing *Cyphocleonus achates* were visually surveyed for prior to the release in a 16 m² quadrat. None were observed. The insects were then released at the site and the spotted knapweed density was recorded.



Knapweed Root Weevil (*Cyphocleonus achates*)



Flowers showing evidence of parasitism

Photos by Darin Banks

Records that have been submitted to NAPIS

Pest: KNAPWEED FLOWER WEEVIL (*Larinus Minutus*)

	Positive	Negative
June 24, 2010 Nemaha	1	0
State Total	1	0

Pest: KNAPWEED ROOT WEEVIL (*Cyphocleonus Achates*)

	Positive	Negative
August 6, 2010 Nemaha	1	0
August 12, 2010 Nemaha	1	0
August 20, 2010 Nemaha	1	0
State Total	1	0

Pest: SPOTTED KNAPWEED (*Centaurea stoebe (biebersteinii) micranthos*)

Positive			Negative		
June 2010			July 2010		
Jackson	0	14	Osborne	0	1
Jefferson	0	16	Phillips	0	24
Jewell	0	23	Pottawatomie	0	21
Nemaha	2	0	Rawlins	0	30
Pottawatomie	0	5	Riley	0	19
July 2010			Shawnee	2	0
Cheyenne	0	29	Smith	0	23
Clay	0	20	Washington	0	2
Cloud	0	20	August 2010		
Decatur	0	27	Douglas	1	17
Douglas	2	14	Franklin	0	8
Franklin	0	3	Johnson	1	24
Jackson	0	4	Miami	0	10
Jewell	0	2	Nemaha	20	76
Johnson	5	15	Pottawatomie	0	1
Mitchell	0	20			
Norton	0	24	State Total		
			31	492	

Cereal Crop Nematode Survey

Participants: KDA full time – Jon Appel provided training.

Temporary staff - Mark McNay, Heather Simmons and Brian Brunkow

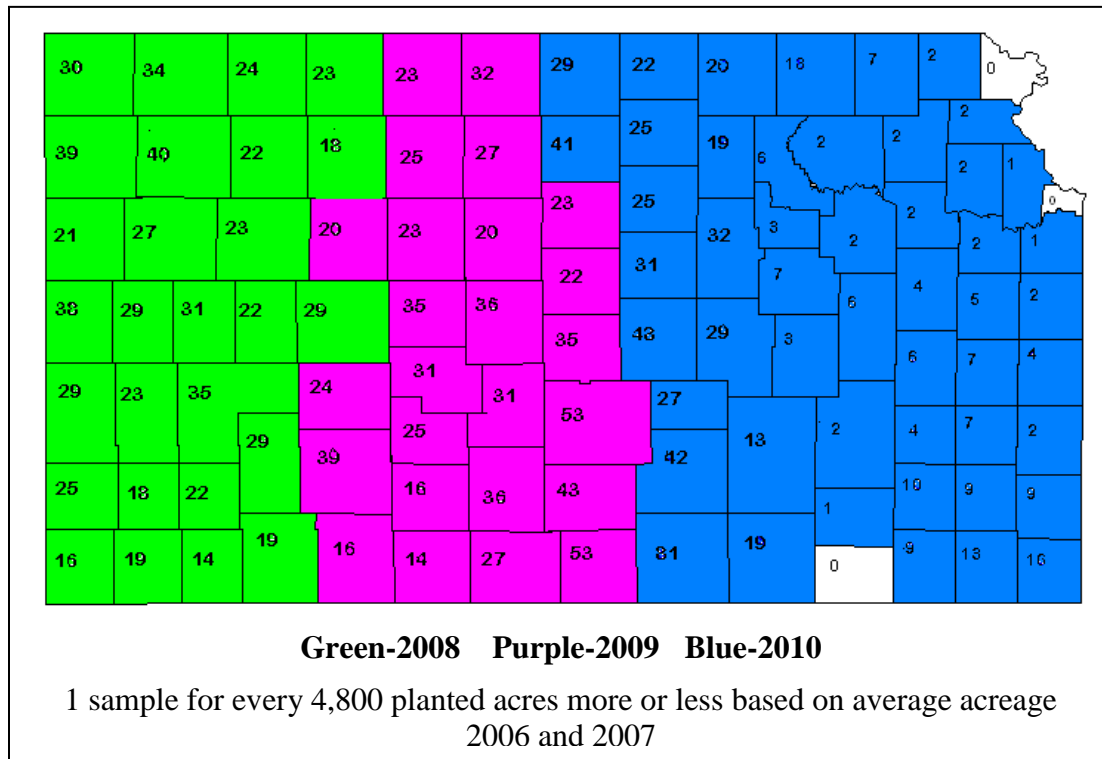
Proposed counties: Allen, Anderson, Atchison, Bourbon, Brown, Butler, Chase, Chautauqua, Cherokee, Clay, Cloud, Coffey, Cowley, Crawford, Dickinson, Doniphan, Douglas, Elk, Franklin, Geary, Greenwood, Harvey, Jackson, Jefferson, Jewell, Johnson, Labette, Leavenworth, Linn, Lyon, Marion, Marshall, McPherson, Miami, Mitchell Montgomery, Morris, Nemaha, Neosho, Osage, Ottawa, Pottawatomie, Republic, Riley, Saline, Sedgwick, Shawnee, Sumner, Wabaunsee, Washington, Wilson, Woodson and Wyandotte.

Month	Activity
April-May	Soil and root sampling of wheat fields

Target Species	Survey Dates (Starting-Ending)	Number of Traps/Visual surveys
British Root Knot Nematode- <i>Meloidogyne artiellia</i>	April-May 2010	20 sample cores/field
Mediterranean Cereal Cyst Nematode- <i>Heterodera latipons</i>		
Cereal Cyst Nematode- <i>Heterodera avenae</i>		
Cereal Cyst Nematode- <i>Heterodera filipjevi</i>		
Other Nematode pests- <i>Pratylenchus species</i>		
Soybean Cyst Nematode- <i>Heterodera glycines</i>		
* Samples for these pests are screened simultaneously		

This survey started on March 29 and ended on May 26, 2010. There was 680 samples planned to be taken in 53 counties but there were actually 661 samples taken in 51 counties. Weather and a decrease in acreage planted were factors in not obtaining the planned number of samples. There are also a few samples needing further identification.

Planned number of samples taken per county:



County	Planned sampling	Actual sampling	County	Planned sampling	Actual sampling	County	Planned sampling	Actual sampling
Allen	7	6	Anderson	7	5	Atchison	2	2
Bourbon	2	2	Brown	2	5	Butler	13	13
Chase	3	3	Cherokee	16	17	Clay	19	19
Cloud	25	25	Coffey	6	5	Cowley	19	19
Crawford	9	9	Dickinson	32	31	Doniphan	0	2
Douglas	2	2	Elk	1	1	Franklin	5	3
Geary	3	3	Greenwood	2	1	Harvey	27	25
Jackson	2	2	Jefferson	2	2	Jewell	29	28
Johnson	1	1	Labette	13	13	Linn	4	4
Leavenworth	1	1	Lyon	5	5	Marion	29	29
Marshall	18	18	McPherson	43	41	Miami	2	2
Mitchell	41	41	Montgomery	9	9	Morris	7	7
Nemaha	7	6	Neosho	9	9	Osage	4	4
Ottawa	25	24	Pottawatomie	2	1	Republic	22	22
Riley	6	6	Saline	31	31	Sedgwick	42	42
Shawnee	2	2	Sumner	81	81	Wabaunsee	2	2
Washington	20	18	Wilson	10	8	Woodson	9	4
						State Total	680	661

Records that have been submitted to NAPIS

Pest: BRITISH ROOT KNOT NEMATODE (*Meloidogyne artiellia*)

Positive Negative			Positive Negative			Positive Negative		
Barley			Clay	0	19	Marshall	0	18
			Cloud	0	25	Miami	0	2
Allen	0	1	Coffey	0	5	Mitchell	0	41
Anderson	0	1	Cowley	0	19	Montgomery	0	9
Atchison	0	1	Crawford	0	9	Morris	0	7
Bourbon	0	1	Dickinson	0	30	Nemaha	0	6
Dickinson	0	1	Doniphan	0	2	Neosho	0	9
Jewell	0	1	Douglas	0	2	Osage	0	4
Marion	0	1	Elk	0	1	Ottawa	0	24
Republic	0	1	Franklin	0	3	Pottawatomie	0	1
Saline	0	1	Geary	0	3	Republic	0	21
Wilson	0	1	Greenwood	0	1	Riley	0	6
			Harvey	0	25	Saline	0	30
Wheat			Jackson	0	2	Sedgwick	0	42
			Jefferson	0	2	Shawnee	0	2
Allen	0	5	Jewell	0	27	Sumner	0	81
Anderson	0	4	Johnson	0	1	Wabaunsee	0	2
Atchison	0	1	Labette	0	13	Washington	0	18
Bourbon	0	1	Linn	0	4	Wilson	0	7
Brown	0	5	Leavenworth	0	1	Woodson	0	4
Butler	0	13	Lyon	0	5			
Chase	0	3	McPherson	0	41	State Total	0	661
Cherokee	0	17	Marion	0	28			

Pest: OAT CYST NEMATODE (*Heterodera avenae*)

Positive Negative			Positive Negative			Positive Negative		
Barley			Clay	0	19	Marshall	0	18
			Cloud	0	25	Miami	0	2
Allen	0	1	Coffey	0	5	Mitchell	0	41
Anderson	0	1	Cowley	0	19	Montgomery	0	9
Atchison	0	1	Crawford	0	9	Morris	0	7
Bourbon	0	1	Dickinson	0	30	Nemaha	0	6
Dickinson	0	1	Doniphan	0	2	Neosho	0	9
Jewell	0	1	Douglas	0	2	Osage	0	4
Marion	0	1	Elk	0	1	Ottawa	0	24
Republic	0	1	Franklin	0	3	Pottawatomie	0	1
Saline	0	1	Geary	0	3	Republic	0	21
Wilson	0	1	Greenwood	0	1	Riley	0	6
			Harvey	0	25	Saline	0	30
Wheat			Jackson	0	2	Sedgwick	0	42
			Jefferson	0	2	Shawnee	0	2
Allen	0	5	Jewell	0	27	Sumner	0	81
Anderson	0	4	Johnson	0	1	Wabaunsee	0	2
Atchison	0	1	Labette	0	13	Washington	0	18
Bourbon	0	1	Linn	0	4	Wilson	0	7
Brown	0	5	Leavenworth	0	1	Woodson	0	4
Butler	0	13	Lyon	0	5			
Chase	0	3	McPherson	0	41	State Total	0	661
Cherokee	0	17	Marion	0	28			

Pest: CEREAL CYST NEMATODE (*Heterodera filipjevi*)

Positive Negative			Positive Negative			Positive Negative		
Barley			Clay	0	19	Marshall	0	18
			Cloud	0	25	Miami	0	2
Allen	0	1	Coffey	0	5	Mitchell	0	41
Anderson	0	1	Cowley	0	19	Montgomery	0	9
Atchison	0	1	Crawford	0	9	Morris	0	7
Bourbon	0	1	Dickinson	0	30	Nemaha	0	6
Dickinson	0	1	Doniphan	0	2	Neosho	0	9
Jewell	0	1	Douglas	0	2	Osage	0	4
Marion	0	1	Elk	0	1	Ottawa	0	24
Republic	0	1	Franklin	0	3	Pottawatomie	0	1
Saline	0	1	Geary	0	3	Republic	0	21
Wilson	0	1	Greenwood	0	1	Riley	0	6
			Harvey	0	25	Saline	0	30
Wheat			Jackson	0	2	Sedgwick	0	42
			Jefferson	0	2	Shawnee	0	2
Allen	0	5	Jewell	0	27	Sumner	0	81
Anderson	0	4	Johnson	0	1	Wabaunsee	0	2
Atchison	0	1	Labette	0	13	Washington	0	18
Bourbon	0	1	Linn	0	4	Wilson	0	7
Brown	0	5	Leavenworth	0	1	Woodson	0	4
Butler	0	13	Lyon	0	5			
Chase	0	3	McPherson	0	41	State Total	0	661
Cherokee	0	17	Marion	0	28			

Pest: SOYBEAN CYST NEMATODE (*Heterodera glycines*)

Positive Negative			Positive Negative			Positive Negative		
Barley			Clay	0	19	Marshall	0	18
			Cloud	0	25	Miami	0	2
Allen	0	1	Coffey	0	5	Mitchell	0	41
Anderson	0	1	Cowley	0	19	Montgomery	0	9
Atchison	0	1	Crawford	0	9	Morris	0	7
Bourbon	0	1	Dickinson	0	30	Nemaha	0	6
Dickinson	0	1	Doniphan	0	2	Neosho	0	9
Jewell	0	1	Douglas	0	2	Osage	0	4
Marion	0	1	Elk	0	1	Ottawa	0	24
Republic	0	1	Franklin	0	3	Pottawatomie	0	1
Saline	0	1	Geary	0	3	Republic	0	21
Wilson	0	1	Greenwood	0	1	Riley	0	6
			Harvey	0	25	Saline	0	30
Wheat			Jackson	0	2	Sedgwick	0	42
			Jefferson	0	2	Shawnee	0	2
Allen	0	5	Jewell	0	27	Sumner	0	81
Anderson	0	4	Johnson	0	1	Wabaunsee	0	2
Atchison	0	1	Labette	0	13	Washington	0	18
Bourbon	0	1	Linn	0	4	Wilson	0	7
Brown	0	5	Leavenworth	0	1	Woodson	0	4
Butler	0	13	Lyon	0	5			
Chase	0	3	McPherson	0	41	State Total	0	661
Cherokee	0	17	Marion	0	28			

Pest: MEDITERRANEAN CEREAL CYST NEMATODE (*Heterodera latipons*)

Positive Negative			Positive Negative			Positive Negative		
Barley			Clay	0	19	Marshall	0	18
			Cloud	0	25	Miami	0	2
Allen	0	1	Coffey	0	5	Mitchell	0	41
Anderson	0	1	Cowley	0	19	Montgomery	0	9
Atchison	0	1	Crawford	0	9	Morris	0	7
Bourbon	0	1	Dickinson	0	30	Nemaha	0	6
Dickinson	0	1	Doniphan	0	2	Neosho	0	9
Jewell	0	1	Douglas	0	2	Osage	0	4
Marion	0	1	Elk	0	1	Ottawa	0	24
Republic	0	1	Franklin	0	3	Pottawatomie	0	1
Saline	0	1	Geary	0	3	Republic	0	21
Wilson	0	1	Greenwood	0	1	Riley	0	6
			Harvey	0	25	Saline	0	30
Wheat			Jackson	0	2	Sedgwick	0	42
			Jefferson	0	2	Shawnee	0	2
Allen	0	5	Jewell	0	27	Sumner	0	81
Anderson	0	4	Johnson	0	1	Wabaunsee	0	2
Atchison	0	1	Labette	0	13	Washington	0	18
Bourbon	0	1	Linn	0	4	Wilson	0	7
Brown	0	5	Leavenworth	0	1	Woodson	0	4
Butler	0	13	Lyon	0	5			
Chase	0	3	McPherson	0	41	State Total	0	661
Cherokee	0	17	Marion	0	28			

Pest: OTHER NEMATODES (*Pratylenchus species*)

Positive Negative			Positive Negative			Positive Negative		
Barley			Clay	17	2	Marshall	10	8
			Cloud	25	0	Miami	1	1
Allen	1	0	Coffey	1	4	Mitchell	39	2
Anderson	1	0	Cowley	8	11	Montgomery	3	6
Atchison	0	1	Crawford	5	4	Morris	5	2
Bourbon	1	0	Dickinson	24	6	Nemaha	4	2
Dickinson	1	0	Doniphan	1	1	Neosho	9	0
Jewell	1	0	Douglas	2	0	Osage	1	3
Marion	1	0	Elk	1	0	Ottawa	20	4
Republic	1	0	Franklin	1	2	Pottawatomie	1	0
Saline	0	1	Geary	3	0	Republic	17	4
Wilson	0	1	Greenwood	1	0	Riley	6	0
			Harvey	13	12	Saline	28	2
Wheat			Jackson	1	1	Sedgwick	21	21
			Jefferson	2	0	Shawnee	1	1
Allen	3	2	Jewell	27	0	Sumner	38	43
Anderson	4	0	Johnson	1	0	Wabaunsee	1	1
Atchison	1	0	Labette	5	8	Washington	13	5
Bourbon	1	0	Linn	1	3	Wilson	3	4
Brown	1	4	Leavenworth	1	0	Woodson	4	0
Butler	7	6	Lyon	3	2			
Chase	1	2	McPherson	30	11	State Total	456	205
Cherokee	15	2	Marion	18	10			

Walnut Twig Beetle Survey: Vector of Thousand Cankers of Walnut

Participants: KDA full time – Glenn Salsbury - sample sorting, visual survey and trapping.
Jon Appel - visual survey. Trapping and Visual survey – Bob Buhler, Tom Sanders
and Terry Clarkson.

Proposed counties: Franklin, Kingman

Month	Activity
April-August	Canopy trapping
July-October	Visual Surveys

Target Species	Survey Dates (Starting-Ending)	Number of Traps/Visual surveys
Walnut Twig Beetle- <i>Pityophthorus juglandis</i>	April-August	10-15 traps
Fungus- <i>Geosmithia</i>	July-October	N/A

Canopy traps were hung starting April 8 and checked every 7-10 days. All traps were taken down by September 9, 2010. The visual surveys occurred in the same areas.

County	# of Traps
Barton	1
Bourbon	2
Cherokee	1
Crawford	1
Franklin	2
Kingman	2
Miami	3
Norton	1
Russell	1
Total	14

Records that have been submitted to NAPIS

Pest: WALNUT TWIG BEETLE (*Pityophthorus juglandis*)

*visual observation sites

	Positive	Negative
Barton	0	1
Bourbon	0	2
Cherokee	0	1
Crawford	0	1
Franklin	0	2
Kingman	0	2
Miami	0	3
Norton	0	1
Russell	0	1
State Total	0	14

Other Records that have been submitted to NAPIS

*Data is not for cooperative agreements.

Pest: SMALL HIVE BEETLE (*Aethina tumida*)

	Positive	Negative
9/2/2010 Coffey	1	0
State Total	1	0

Pest: GYPSY MOTH (European) (*Lymantria dispar*)

*Data Source: KDA

	Positive	Negative
Butler	0	6
Douglas	0	1
Ellsworth	0	2
Greenwood	0	4
Jewell	0	2
Johnson	0	3
Labette	0	4
Miami	0	2
Mitchell	0	1
Montgomery	0	3
Norton	0	1
Pottawatomie	0	1
Reno	0	4
Rooks	0	1
Russell	0	3
Sumner	0	1
Woodson	0	4
State Total	0	43

Pest: GYPSY MOTH (Asian) (*Lymantria dispar dispar*)

*Data Source: KDA

	Positive	Negative
Butler	0	6
Douglas	0	1
Ellsworth	0	2
Greenwood	0	4
Jewell	0	2
Johnson	0	3
Labette	0	4
Miami	0	2
Mitchell	0	1
Montgomery	0	3
Norton	0	1
Pottawatomie	0	1
Reno	0	4
Rooks	0	1
Russell	0	3
Sumner	0	1
Woodson	0	4
State Total	0	43

Pest: GYPSY MOTH (European) (*Lymantria dispar*)***Data Source:** USDA-APHIS

	Positive	Negative
Atchison	0	11
Brown	0	16
Doniphan	0	11
Douglas	0	23
Franklin	0	19
Geary	0	1
Jackson	0	9
Jefferson	0	18
Johnson	0	156
Leavenworth	0	28
Miami	0	15
Nemaha	0	15
Osage	0	39
Pottawatomie	0	10
Sedgwick	0	9
Shawnee	0	33
Wabaunsee	0	6
Wyandotte	0	36
State Total	0	455

Pest: GYPSY MOTH (Asian) (*Lymantria dispar dispar*)***Data Source:** USDA-APHIS

	Positive	Negative
Atchison	0	11
Brown	0	16
Doniphan	0	11
Douglas	0	23
Franklin	0	19
Geary	0	1
Jackson	0	9
Jefferson	0	18
Johnson	0	156
Leavenworth	0	28
Miami	0	15
Nemaha	0	15
Osage	0	39
Pottawatomie	0	10
Sedgwick	0	9
Shawnee	0	33
Wabaunsee	0	6
Wyandotte	0	36
State Total	0	455

Pest: ROSY MOTH (*Lymantria Mathura*)***Data Source:** USDA-APHIS

	Positive	Negative
Franklin	0	1
Johnson	0	12
Sedgwick	0	12
Wyandotte	0	5
State Total	0	30

